

COMPOSITE MATERIALS WITH DISTINCTIVE
BEHAVIORS UNDER HIGH ELECTRIC FIELDS:
1- MATERIAL SWITCHES TO "HIGH RESISTIVE" STATE.

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September 15, 1994

Summary:

Electrically conductive silver filled epoxy ECF-563 preform, sandwiched between gold contact pads exhibits intermittent current-voltage characteristics with switching to "high resistive" state under applied bias voltage. The observed phenomena is believed to be an intrinsic property of composite materials when strong localized centers introduce space charge effects. We also propose some important applications.